marantz
PROFESSIONAL

PMD570

Professional Installation Solid State Recorder

RS-232 Serial Control Addendum for Owners Manual

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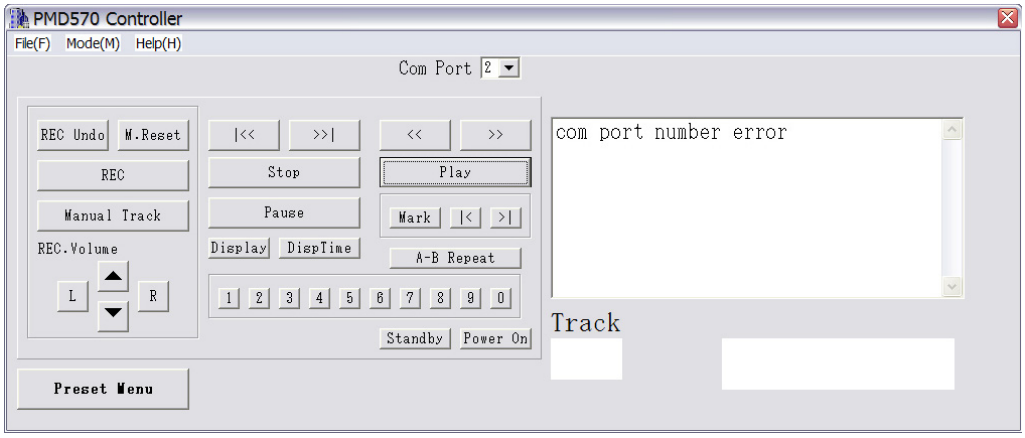
RS-232C Control Windows Application

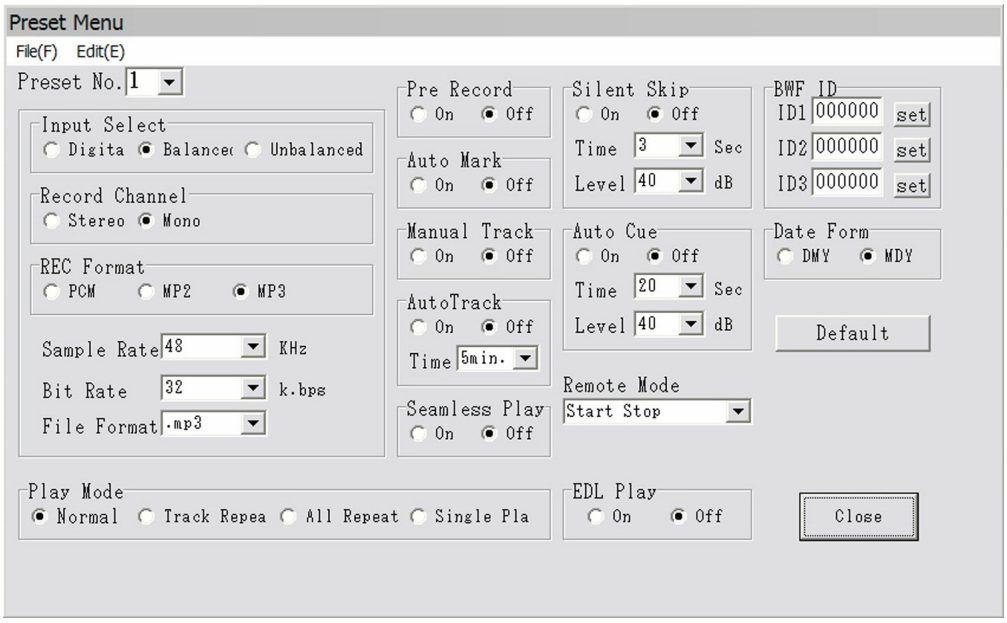
An RS232 Windows Application for the PMD570 is available for free download (see www.d-mpro.com to download). The Application lets you control and setup the PMD570 from your PC.

Connect your Windows compatible computer to the PMD570 via the REMOTE RS-232C connector on the PMD570 to your computer's RS-232C port. Install the software on your computer.

- control all functions of PMD570
- setup/preset menu
- read/write settings to/from PMD570
- save settings as text file,
- convert settings text file to setup/presets of PMD570
- see www.d-mpro.com for available setup text files from Marantz Professional



Control screen as it would appear on your computer.



Preset Menu screen as it would appear on your computer (example settings).

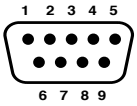
RS-232C control

Connect a male (D-Sub 9 Pin) to female (D-Sub 9 Pin) straight cable for RS-232C external control by host equipment.

- The RS-232C host can control functions of the PMD570 externally
- The PMD570 automatically transmits status data when status is changed.
- The PMD570 will respond to status requests by transmitting the associated status data.

RS-232C specifications:

Connector pin assignment



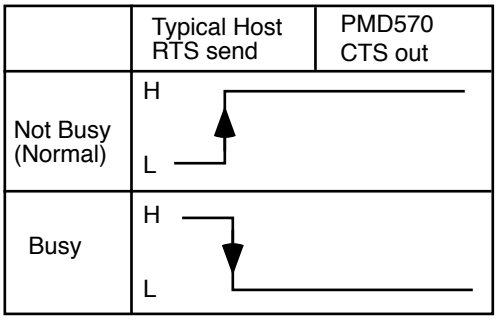
pin	use	PMD570	Typical Host
1	NC	Not Connected	Not Connected
2	TX	Transmit Data	Receive Data
3	RX	Receive Data	Transmit Data
4	NC	Not Connected	Not Connected
5	GND	Ground	Ground
6	NC	Not connected	Not connected
7	RTS	RTS receive	RTS send
8	CTS	CTS send	CTS receive
9	NC	Not Connected	Not Connected
cable connector		D-Sub 9 pin (male)	D-Sub 9 pin (female)

Physical specifications

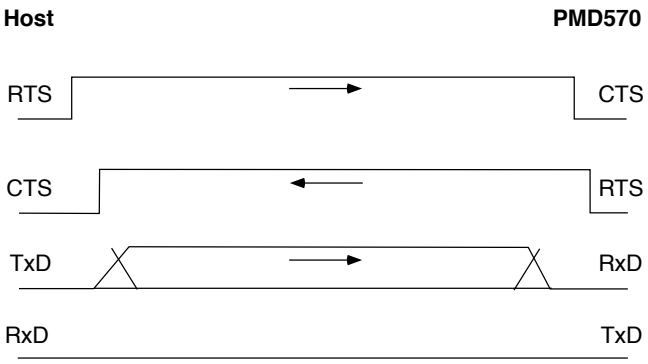
Cable	Straight cable
Baud rate	9600 bps
Data bits	8 bits
Parity bit	None
Stop bit	1 bit
Flow control	CTS/RTS Hardware Flow

Flow control and timing

CTS/RTS hardware flow control



Timing chart

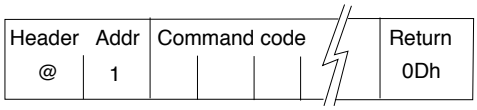


1. The host requests data by setting RTS to L.
2. Upon data request by CTS, the PMD570 responds by setting RTS to H if not busy.
3. The host checks if CTS is H and stats data output on TxD.
4. When data output finishes, the host sets RTS to H.
5. The PMD570 checks if CTS is H and sets RTS to L.

Command format

Start character: @
End character: 0Dh

Basic format



Received okay and error codes

OK (data receive successful) (ACK): 06h
Error (data receive error) (NACK): 15h

Normal Return

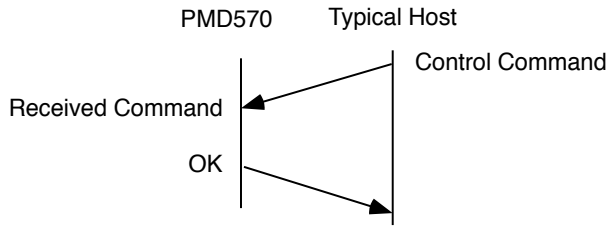
Error Return

Notes:

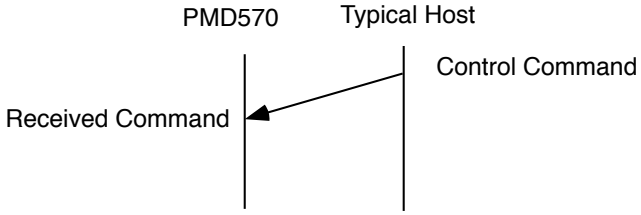
The receiving side ignores data received prior to "@". If code data is received without receiving "@", the data receive error code will be returned.
The tolerance for send/receive clock error is ±10%.
For sending a command, wait more than 20ms after reception of a response (OK, ERR or Status).
Reception of 0Dh or timeout is used to determine the end of a command. Timeout occurs 1 second after the reception of the last byte.

Hand shake flow charts for control commands

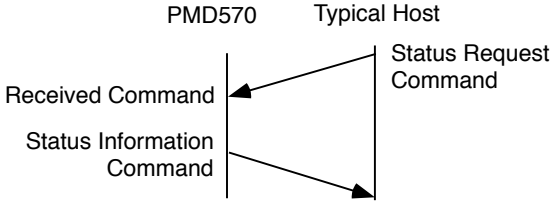
Host sends a command that causes a change in PMD570 status.



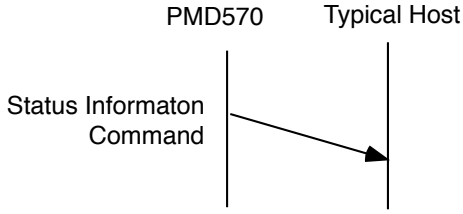
Host sends a command that causes no change in PMD570 status. For example, Host requests Play during Playback.



Status Request Commands from the host are received by the PMD570, then the status information code is transmitted to the host.



A change in the state of the PMD570 automatically transmits a status information code to the host.



Control command codes

The control command packets have a data length of 7~10 bytes. ASCII codes from 0x00 to 0x7f are used to receive serial data. At the transmission end, take steps to convert the ASCII codes into HEX data to set the data in the data packets. CR (0x0d) is added as the data packet delimiter.

Example: Control command code for number 5 (ASCII code @02305CR)

@	0	2	3	0	5	CR
0x40	0x30	0x32	0x33	0x30	0x35	0x0d

When transmitting commands consecutively, put more than 100ms blank between commands.

Status Request and Status Information codes :

The status data packets have a fixed data length of 8 bytes. ASCII codes from 0x00 to 0x7f are used to transmit serial data. For this reason, the ASCII codes are converted into HEX data before the data is set in the data packets and transmitted. CR (0x0d) is added as the data packet delimiter.

Example: Status Information code "Door open" (ASCII code @0DS01CR)

@	0	D	S	0	1	CR
0x40	0x30	0x44	0x53	0x30	0x31	0x0d

Table of Control command codes

Control Command	Code
0	"@02300" + CR
1	"@02301" + CR
2	"@02302" + CR
3	"@02303" + CR
4	"@02304" + CR
5	"@02305" + CR
6	"@02306" + CR
7	"@02307" + CR
8	"@02308" + CR
9	"@02309" + CR
DISPLAY	"@02311" + CR
Standby	"@02312" + CR
Power ON	"@023PW" + CR
Add EDL mark	"@023121" + CR
Recording Volume +	"@023V+" + CR
Recording Volume -	"@023V-" + CR
Recording Balance Right	"@023BR" + CR
Recording Balance Left	"@023BL" + CR
Track Jump >>I (Next)	"@02332" + CR
Track Jump I<< (Back)	"@02333" + CR
PAUSE	"@02348" + CR
Fast Reverse Start <<	"@02350" + CR

continues

Table of Control command codes continued

Fast Reverse Stop << ..... “@0235001” + CR
Fast Forward Start >> ..... “@02352” + CR
Fast Forward Stop >> ..... “@0235201” + CR
PLAY ..... “@02353” + CR
STOP ..... “@02354” + CR
RECORD ..... “@02355” + CR
A-B ..... “@02359” + CR
REC UNDO ..... “@023RU” + CR
Manual Track ..... “@023MT” + CR
Next EDL mark ..... “@023M+” + CR
Previous EDL mark ..... “@023M-” + CR
MARGIN RESET ..... “@023MR” + CR
Preset 1* ..... “@0PS01” + CR
Preset 2* ..... “@0PS02” + CR
Preset 3* ..... “@0PS03” + CR
Input Select*
- Unbalanced Input ..... “@0INUB” + CR
- Balanced Input ..... “@0INBA” + CR
- Digital In ..... “@0INDI” + CR

Date Form*
- M/D/Y ..... “@0DFDM” + CR
- D/M/Y ..... “@0DFMD” + CR

Recording File Format*
- Channels
  - Stereo ..... “@0CHST” + CR
  - Mono ..... “@0CHMO” + CR
- Audio Format
  - PCM ..... “@0AFPM” + CR
  - MP2 ..... “@0AFM2” + CR
  - MP3 ..... “@0AFM3” + CR
- Bit Rate (XXX)** ..... “@0BRXXX” + CR
- Sampling Rate (XX)** ..... “@0FSXX” + CR
- File Format
  - bwf ..... “@0FTBW” + CR
  - wav ..... “@0FTWA” + CR
  - mpg ..... “@0FTMG” + CR
  - mp3 ..... “@0FTM3” + CR
- BWF File Extension
  - bwf ..... “@0EXBW” + CR
  - wav ..... “@0EXWA” + CR

PreRecord*
- ON ..... “@0PR00” + CR
- OFF ..... “@0PR01” + CR

Auto Mark*
- ON ..... “@0AM00” + CR
- OFF ..... “@0AM01” + CR

ManualTR*
- ON ..... “@0MT00” + CR
- OFF ..... “@0MT01” + CR

AutoTrk*
- ON ..... “@0AK00” + CR
- OFF ..... “@0AK01” + CR

Time
- hhmm ..... “@0AThhmm” + CR

SeamlsPly*
- ON ..... “@0CP00” + CR
- OFF ..... “@0CP01” + CR

SilentSkp*
- ON ..... “@0SS00” + CR
- OFF ..... “@0SS01” + CR
- seconds (XX) ..... “@0SCXX” + CR
- M. Level (XX) ..... “@0SLXX” + CR

Auto Cue*
- ON ..... “@0AC00” + CR
- OFF ..... “@0AC01” + CR
- seconds (XX) ..... “@0CTXX” + CR
- M.Level (XX) ..... “@0CLXX” + CR

Play Mode*
- Normal ..... “@0PMOF” + CR
- Repeat All ..... “@0PMAL” + CR
- Repeat TRK ..... “@0PMAR” + CR
- Single ..... “@0PMSP” + CR

EDL Play*
- ON ..... “@0EP00” + CR
- OFF ..... “@0EP01” + CR

Remote*
- StartPause ..... “@0RCSR” + CR
- StrtPausTR ..... “@0RCSS” + CR
- EDL Mark ..... “@0RCMA” + CR
- Manual TRK ..... “@0RCMT” + CR

ID1Dscrpt* ..... “@0D1XXXXXX” + CR
ID2Origin ..... “@0D2XXXXXX” + CR
ID3OrRef ..... “@0D3XXXXXX” + CR
Default* ..... “@0DEFL” + CR

*Must be in stop mode.
**Shorten. For example, 22.05KHz = 22.

Table of Status Request and Status Information codes:

When a Status Request Command from the host is received by the PMD570, the PMD570 sends the Status Information to the host. When the PMD570 changes status, the PMD570 automatically sends Status Information to the host.

Status	Request Code	Information Code
Power Mode	"@0?PW" + CR	
On		"@0PW00" + CR
Off		—
Standby		"@0PW01" + CR
Door Condition	"@0?DS" + CR	
Open		"@0DS01" + CR
Closed		"@0DS00" + CR
Card Condition	"@0?CD" + CR	
No Card		"@0CDNC" + CR
Reading		"@0CDRE" + CR
Card Inside		"@0CDCI" + CR
Card Error		"@0CDCE" + CR
Card 999		"@0CD99" + CR
Card Full		"@0CDFL" + CR
Blank Card		"@0CDBC" + CR
Read Error		"@0STER" + CR
Writing		"@0STWR" + CR
Write Error		"@0STEW" + CR
Operation Status	"@0?ST" + CR	
In Record		
Digital In Unlock		"@0STRU" + CR
Recording		"@0STRE" + CR
Rec Pause		"@0STRP" + CR
In Stop		
Stop		"@0STST" + CR
Track Select		"@0STTS" + CR
In Playback		
Play		"@0STPL" + CR
Play Pause		"@0STPP" + CR
Seek +		"@0STS+" + CR
Seek -		"@0STS-" + CR
Fast Forward		"@0STFF" + CR
Fast Reverse		"@0STRW" + CR
A-B Repeat		"@0STAB" + CR
EDL Play		"@0STEP" + CR
EDL A-B Repeat		"@0STEA" + CR
Others		
Track Edit /Preset		"@0STED" + CR
Operation Error		"@0STER" + CR
Display Condition	"@0?TMOD" + CR	
Rec Remain Time		"@0TMRE" + CR
Total Track Number		"@0TMTN" + CR
Total Mark Number		"@0TMTM" + CR
File Format		"@0TMAG" + CR
Date		"@0TMND" + CR
Track Time		"@0TMTT" + CR
Recorded Data		"@0TMRD" + CR
Track Remain Time		"@0TMTR" + CR
Track Number (XXX)	"@0?PS" + CR	"@0TRXXX" + CR
Track Time (hhhmmss)	"@0?TI" + CR	"@0TIhhhmmss" + CR
Preset Number	"@0?PS" + CR	
Preset 1		"@0PS01" + CR
Preset 2		"@0PS02" + CR
Preset 3		"@0PS03" + CR
Input Selection	"@0?IN" + CR	
Unbalanced		"@0INUN" + CR
Balanced		"@0INBA" + CR
Digital In		"@0INDI" + CR
Date Form	"@0?DF" + CR	
M/D/Y		"@0DFDM" + CR
D/M/Y		"@0DFMD" + CR
RecFormat		
Channels	"@0?CH" + CR	
Stereo		"@0CHST" + CR
Mono		"@0CHMO" + CR
Audio Format	"@0?AF" + CR	
PCM		"@0AFPM" + CR
MP2		"@0AFM2" + CR
MP3		"@0AFM3" + CR
Bit Rate (XXX)	"@0?BR" + CR	"@0BRXXX" + CR
Sampling Rate (XX)	"@0?FS" + CR	"@0FSXX" + CR
File Format	"@0?FT" + CR	
BWF		"@0FSBW" + CR
Wave		"@0FTWA" + CR
MP2		"@0FTMG" + CR
MP3		"@0FTM3" + CR
File Extension	"@0?EX" + CR	
.bwf		"@0EXBW" + CR
.wav		"@0EXWA" + CR
.mpg		"@0EXM2" + CR
.mp3		"@0EXM3" + CR
Pre-record	"@0?PR" + CR	
ON		"@0PR00" + CR
OFF		"@0PR01" + CR
Auto Mark	"@0?AM" + CR	
ON		"@0AM00" + CR
OFF		"@0AM01" + CR
Manual TR	"@0?MT" + CR	
ON		"@0MT00" + CR
OFF		"@0MT01" + CR
Auto Trk	"@0?Ak" + CR	
ON		"@0AK00" + CR
OFF		"@0AK01" + CR
Time (hhmm)	"@0?AT" + CR	"@0AThhmm" + CR
SeamlsPly	"@0?CP" + CR	
ON		"@0CP00" + CR
OFF		"@0CP01" + CR
SilentSkp	"@0?SS" + CR	
ON		"@0SS00" + CR
OFF		"@0SS01" + CR
seconds (XX)	"@0?SC" + C	"@0SCXX" + CR
M.Level (XX)	"@0?SL" + CR	"@0SLXX" + CR
Auto Cue	"@0?AC" + CR	
ON		"@0AC00" + CR
OFF		"@0AC01" + CR
seconds (XX)	"@0?CT" + CR	"@0CTXX" + CR
M.Level (XX)	"@0?CL" + CR	"@0CLXX" + CR
Play Mode	"@0?PM" + CR	
Normal		"@0PMOF" + CR
Repeat All		"@0PMAL" + CR
Repeat TRK		"@0PMAR" + CR
Single		"@0PMSP" + CR
EDL Play	"@0?EP" + CR	
ON		"@0EP00" + CR
OFF		"@0EP01" + CR
Remote	"@0?RC" + CR	
StartPause		"@0RCSS" + CR
StrtPausTR		"@0RCSR" + CR
EDLMark		"@0RCMA" + CR
Manual TRK		"@0RCMT" + CR
ID1Dscrpt	"@0?D1" + CR	"@0D1XXXXXX" + CR
ID2Origin	"@0?D2" + CR	"@0D2XXXXXX" + CR
ID3OrRef	"@0?D3" + CR	"@0D3XXXXXX" + CR

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